DATE 1/23/07
HB Public Comment / ED

# **Testimony in Support of the Montana Bureau of Mines and Geology**

# Submitted to the

# Joint Appropriations Subcommittee on Education

60<sup>th</sup> Montana Legislature January 23, 2007

- 1. Mr. Ted Antionoli, President, Missoula Chapter of the Montana Mining Association
- 2. Mr. Doug Askin, Ronald L. Askin Drilling, Miles City, Montana
- 3. Dr. Hart Baitis, President, Ruby Valley Garnet LLC, Alder, Montana
- 4. Mr. Joe Bardswich, mining consultant, Whitehall, Montana
- 5. Mr. Mike Brown and Mr. Seth Makepeace, Confederated Salish and Kootenai Tribes, Pablo, Montana
- 6. Ms. Susan Brueggeman R.S., Director, Lake County Environmental Health, Polson, Montana
- 7. Ms. Kate Cassidy R.S., Paul J. Stokes and Associates Inc., Kalispell, Montana.
- 8. Dr. Stephan G. Custer, Head Earth Sciences Department, Montana State University, Bozeman, Montana
- 9. Mr. Rob Diedrich, VP Exploration/Exploitation Nance Petroleum Corp., Billings, Montana
- 10. Ms. Doris Fischer, Director, Madison County Planning Board, Virginia City, Montana
- 11. Dr. Fess Foster, Geological and Environmental Consultant, Whitehall, Montana
- 12. Mr. Glenn Gay, Gay Ranch Inc, Broadus, Montana
- 13. Mr. Tom Gignoux, Concordia LLC, Missoula, Montana
- 14. Mr. Russell Hage, quartz miner, Missoula, Montana
- 15. Ms. Michelle Haggerty, Kevin Haggerty Drilling Inc., Bozeman, Montana
- 16. Mr. Jon Harvala, Missoula County Water Quality District, Missoula, Montana
- 17. Mr. John Koski, Koski Consulting Corporation, Billings, Montana
- 18. Mr. Brian Launius, Envirotech Consulting Inc, President Montana Environmental Consultants Association
- 19. Mr. Bret Lawson, Operations Manager Ruby Valley Garnet LLC, Alder, Montana
- 20. Mr. Chad Lee, Helena Montana
- 21. Ms. Bonnie Lovelace, Water Protection Bureau, Department of Environmental Quality, Helena, Montana
- 22. Ms. Gloria Menke, District Manager, Big Horn Conservation District, Hardin, Montana
- 23. Ms. Kathy Moore, Administrator, Lewis and Clark County Water Quality Protection District, Helena, Montana
- 24. Mr. John Peterson, Kootenai Surveyors Inc., Libby, Montana
- 25. Mr. Tim Read R.S., Mineral County Sanitarian and Planner
- 26. Mr. Mick Seeburg, Bozeman, Montana
- 27. Mr. Walter Taylor, Rosebud Watershed Group, Busby, Montana
- 28. Mr. Dick Wilson, President, Citizens for Resource Development, Broadus, Montana

P.O. Box 421 Missoula, MT 59803 January 11, 2007

## To Whom It May Concern:

I am writing as President of the Missoula Chapter of the Montana Mining Association, which is an active club whose members are engaged in activities ranging from mineral exploration to gold panning, to explain some of the ways that our members are assisted by the Montana Bureau of Mines and Geology.

Our primary contact in the Bureau is Robin McCulloch. Robin has the broadest knowledge of the Montana mining scene — current and historical - of anyone. In the course of an exploration project, one of the first items of business is to gather up the historical information on past exploration and mining in the area of interest. Robin has extensive personal knowledge of many prospects, and has built up a large database of public and private (donated) information including drill records, mine maps, geochemical and geophysical surveys, and mineral resources pertaining to many properties. His field experience on Montana mineral properties is also very extensive.

Because of his extensive knowledge, Robin can serve as a "matchmaker" between people that are looking for help exploring or developing that property and the mining industry professionals with the skills to perform given exploration and mining related tasks, as well as guiding people who are looking for particular commodities toward known deposits of those commodities. Robin provides high-quality information on mine permitting procedures, and current mining costs. He works as a liaison to small placer miners and prospectors throughout the state, disseminating "best management practices" and helping to keep small miners from environmental problems and permitting conflicts.

Another activity of vital interest to our members is the geologic mapping program. In particular I would mention the geologic work and mapping of Dick Berg and Jeff Lonn. Basic geology, including mapping, has many applications beyond mineral exploration (such as identification of geologic hazards) but is certainly a central part of the information needed for exploration and mining.

In conclusion I would like to urge continued strong legislative support for the Montana Bureau of Mines and Geology.

Sincerely,

Ted Antonioli, President Missoula Chapter, Montana Mining Association

#### RONALD L. ASKIN DRILLING RR2 BOX 3117 MILES CITY, MT 59301 PHONE: (406) 234-1949

To whom it may concern,

I am a third generation water well contractor. I use the GWIC almost daily. Whether I am entering new well, looking for information old wells, or to determine potential well depths, this is a fast easy to use site that saves me time and money. I hope that more funding becomes available to aid in research of more information on older well logs, so they to may be entered into the GWIC system. Maybe with more funding we could add some more time savers such as, well abandonment forms, printable water rights forms (to pass on to our new well owners), and possibly a way to recall the names and addresses in my drillers web file. So I can enter another well log for that well owner without retyping the same information more than once. If I need information on wells, the first place I look is the GWIC site.

My second source of information is my MBMG geological maps. These maps are very informative and are super visual props to help me show the customer the best potential spots to find water, particularly the Montana Atlas Series. I have the only two maps completed in this series, ( map MA-1 Ekalaka, and MA-2 Hardin). I understand that the information has all been completed for the remaining maps in this series, but the funding for this project was cut off. What a shame! Not only do these maps show the surface geology, they also show contours of the subsurface geology, several well depths, water levels, and yields. These maps also help us decide on the most efficient well design for each geological structure. How can I help get the ball rolling to finish this mapping project, and others like it?

Lastly, if I can't find the information on GWIC or my MBMG maps. I will call Bob Burgantino, Luke Buckley, or Tom Patton at the Montana Bureau of Mines and Geology. If they can't answer my question, I don't believe there is one.

Thank You,

Doug Askin

January 9, 2007

# To Whom It May Concern:

I am writing in support of the Montana Bureau of Mines and Goology request for funding. I am a geologist, a citizen of Montana, and own numerous properties in the state, including 50% ownership in the Ruby Garnet Mine, located near Alder, Montana.

Over the last 30 years I have frequently utilized various services provided by the Bureau and have been very thankful for the presence of the Bureau in Butte.

I would like to list several examples of the assistance provided to me by the Bureau and its personnel over the past year (2006):

- Ruby Garnet was searching for an operations manager for their Alder plant. Robin Mcculloch and Dick Berg (employees at the Burcaw) identified and recommended a mining engineer who had been working for a competing company in New York. With their contact information, this individual was hired to manage the Ruby Garnet operation.
- 2. Dick Berg assisted in the petrographic determination of heavy minerals found in our active mine that supplies feed for the Ruby Garnet Mine

- Robin Mcculloch reviewed placer operation/ revlamation projects at Brown's Gulch and Alder Gulch in Madison County, MT. His assistance provided key input into mining approaches and reclamation at our two properties
- I have made use of the availability of technical publications and topographic maps by purchasing them at the Bureaus Butte office.
- 5. Several persons at the Bureau were contacted during the course of the year to answer technical questions or steer me to the appropriate person for information.

The Bureau continues to be a valuable resource to those of us in the geologic field, providing technical expertise, research materials, and continuing generation of geologic mapping and technical reports.

I believe continued funding for the Montana Bureau of Mines and Goology is important for the economic well-being of the State of Montana, to individuals, and to companies like mine

Sincerely, Dr. Hart Baitie President - Ruby Valley Garnet, LLC P.O. Box 161 2200 Huy 287 Alder, MT 59710

# L. J. BARDSWICH 571 CEDAR HILLS ROAD WHITEHALL, MT 59759

Tel/Fax 406 287 9336

January 17, 2007

To Whom It May Concern:

Re: Montana Bureau of Mines & Geology

I have acted as a mining consultant to several companies, active internationally, in mineral exploration. I have made frequent use of the data available from the Montana Bureau of Mines & Geology and have solicited opinions, advice and assistance from several of the Bureau's experts. The facilities of the Bureau and their assistance have played a significant role in the decision of these companies to spend money in the State. The companies that I have been associated with have spent in excess of \$1.5 million in salaries and purchases in Montana, primarily in Lewis and Clark, Jefferson, Beaverhead, Madison, Powell and Silver Bow counties.

With the present high prices for metals, the ability of the Bureau to continue their work is more important than ever. It should be an objective of Montana to attract additional investment dollars from the mineral exploration sector for the benefit of all Montanans.

Joe Bardswich

# THE CONFEDERATED SALISH AND KOOTENAI TRIBES OF THE FLATHEAD NATION

SALISH KOOTENAI NATION

Joseph E. Dupuis - Executive Secretary Vern L. Clairmont - Executive Treasurer Leon Bourdon - Sergeant-at-arms P.O. BOX 278 Pablo, Montana 59855 (406) 275-2700 FAX (406) 275-2806 www.cskt.org

January 16, 2007



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Sonny Morigeau

#### To Whom It May Concern:

The Confederated Salish and Kootenai Tribes of the Flathead Reservation have a constructive and mutually beneficial relationship with the Montana Bureau of Mines and Geology. The Tribes operate seismic monitoring instrumentation on the Reservation in cooperation with the MBMG and rely on them to provide rapid, accurate information—both via their website and in person—about seismic events that may affect critical facilities on the Reservation. The Flathead Reservation and surrounding areas of western Montana face a significant level of seismic hazard and this monitoring program, now in its 10<sup>th</sup> year, provides a reliable and cost effective method for understanding these hazards and responding to significant earthquakes.

The Salish and Kootenai Tribes Water Management Program has also had a long and beneficial history with the Montana Bureau of Mines and Geology. MBMG scientists have completed groundwater resource evaluations on the Reservation, starting in the late 1970's. These work products are part of the resource management toolbox Tribal staff utilize on an ongoing basis. More recently and through the State-wide Groundwater Assessment Program, MBMG staff have completed the groundwater atlas for Flathead and Lake Counties. This report and set of map plates is an invaluable resource describing Reservation groundwater conditions. Finally, Tribal staff rely very heavily on the webbased Groundwater Information Center (GWIC) database for a wide range of information, including as a platform to disseminate Tribal groundwater level monitoring information.

We urge your continued support of the Montana Bureau of Mines and Geology in the current legislative session.

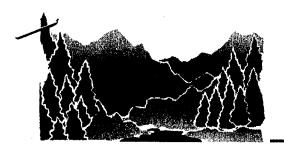
Sincerely,

Michael R. Brown

Safety of Dams Coordinator

Seth Makepeace

Tribal Hydrologist



# LAKE COUNTY ENVIRONMENTAL HEALTH

106 FOURTH AVENUE EAST POLSON, MT 59860-2175

PH: 406-883-7236 FAX: 406-883-7205 Email: envhealth@lakemt.gov

January 16, 2007

RE: H

House Bill 2

Funding for Montana Bureau of Mines and Geology Programs

Dear Montana Legislators:

This letter serves as support for the Montana Bureau of Mines and Geology; it is an invaluable resource to Montana's present and future generations.

As Director of Environmental Health for Lake County, I can assure you the resources provided by this agency are used every day in our department. The Ground Water Information Center (GWIC) provides critical data as we assess the impacts of wastewater treatment systems and subdivisions. The ground water mapping provided by this agency is on every computer in our department due to frequent use; MBMG maps "decorate" our office walls. And, in case you do not hear from these groups, the environmental consultant and realtor communities rely heavily on these same resources.

MBMG also serves as the central storehouse for water quality information. Having one location for this data allows us to track changes in water quality. Data stored today in the ground water information system will certainly serve Montana's future as we monitor trends in water quantity and quality over the decades.

#### In encourage you to:

- 1. Continue Montana's financial support of this invaluable bureau.
- 2. Remove the funding cap on the Ground Water Assessment Program. This will allow the agency to seek other funding to offset inflationary costs without placing a demand on the state's financial resources.
- 3. Prevent program losses by re-authorizing the one-time funding provided by the 2005 Legislature which supports the Ground Water Assessment Program and GWIC.

The ability of our department to protect public health and the environment would simply not be as feasible without the accessible resources of the Montana Bureau of Mines and Geology; it is truly one of our state's treasures.

Sincerely,

Susan K. Brueggeman, R.S.

Director

#### Patton, Tom

From:

Kate Cassidy [kate@montanasky.net]

Sent:

Tuesday, January 16, 2007 9:54 AM

To:

Patton, Tom

Subject:

gwic concerns

Attachments: KATE CASSIDY.vcf

Re- GWIC and Mt. Bureau of Mines and Geology,

To whom it may concern,

I work for an engineering and consulting firm in Kalispell. We work both with the MDEQ and various County departments on land development. We use the GWIC site on a regular bases to research and determine water quality, population density in a given area and static ground-water levels for environmental assessments to name a few. We strongly urge that funding for this site should be provided to continue the many benefits it provides to the many agencies, consultants and the public.

Kate Cassidy R.S.
Paul J. Stokes and Associates Inc.
322 2nd Ave. West, Suite B
Kalispell, MT 59901
(406) 755-8707
FAX 755-2613



College of
LETTERS & SCIENCE

January 15, 2007

To whom it may concern,

I am writing in support of the Montana Bureau of Mines and Geology (MBMG) and their value to the state of Montana. I am a geologist who works on ground water, surface water, and geologic issues in the state. I currently serve as the Chairperson for the State Map Advisory Board organized by the MBMG to help garner USGS funds for geologic mapping in the state. I also serve as a non-voting member of the advisory board for the Ground-Water Characterization and Ground-Water Assessment programs. I have used Bureau data for over 30 years.

Department of Earth Sciences The Montana Bureau of Mines and Geology is a valuable state resource. In the area of geology the Bureau staff work hard to provide the state and the nation with geologic information about Montana. They are making inexorable and valuable progress toward completion of a state Geologic Map. As part of this effort the have completed a significant number of 1:100,000 scale geologic maps with a goal of completing all of them. These maps provide an excellent base from which to interpret ground water, tectonic patterns, loci for petroleum exploration, and minerals exploration. The maps are also valuable for facilities siting and decisions regarding geologic hazards. The Bureau levers its state resources to garner additional federal support for mapping. Their efforts support improved data and knowledge regarding geology relevant to carbon dioxide sequestration, coal-bed methane issues, abandoned mine reclamation. MBMG also supports and exceptional minerals museum and a widely used earthquake program (recall the Dillon Earthquake). The geologic data provided by the Bureau is excellent.

In addition, the Bureau works on ground-water assessment and characterization. The maps produced are excellent and very helpful to cities and counties as they make decisions about water issues. I personally contribute data to the Ground-Water-Information Center (GWIC) and sincerely appreciate this important resource. GWIC is a national leader in ground-water-information management. I use their data for student exercises, to help answer questions from the public, to support externally funded projects which provide information to local county commissions and the public, and to support the activities of other agencies such as DNRC Yellowstone Controlled Ground Water Area established by the Reserved Water Rights Compact Commission and the Montana Legislature.

I encourage you to support the Montana Bureau of Mines and Geology.

Sincerely,

200 Traphagen Hall P.O. Box 173480 Bozeman, MT 59717-3480 www.montana.edu/wwwes

Tel (406) 994-3331 Fax (406) 994-6923

E-mail

earthsciences@montana.edu

Stephan G. Custer

Sylocal

Associate Professor of Geology

Head, Earth Sciences

#### Patton, Tom

From: Rob Diedrich [rdiedrich@nancepetro.com]

Sent: Tuesday, January 16, 2007 1:04 PM

To: Patton, Tom

Subject: Letter support for the MT Bureau of Mines and Geology

#### Tom

I am in support of continuing to budget the Montana Bureau of Mines and Geology in an appropriate way for the bureau to continue its current programs. As a petroleum geologist I have benefited from various mapping projects conducted by the bureau including Ft. Union coal studies in the Powder River Basin and more recently, surface geologic mapping performed by Karen Porter. The latter has resulted in higher resolution geologic maps that have provided much more detail in some important geologic provinces within the state.

In addition the water well monitoring work done by John Wheaton in Big Horn and Powder River Counties has been meaningful in collecting important baseline data for the Tongue River coals. John has also been an excellent public source of information for the development of coal bed natural gas in Montana, using scientific data to address the important facts, while not politicizing the issues.

I feel the Montana Bureau of Mines and Geology provides meaningful information and services to the state and support a full funding of their 2007 budget.

Sincerely,

Rob Diedrich VP Exploration/Exploitation Nance Petroleum Corp. 550 N. 31st St., Suite 500 Billings, MT 59101 406-869-8643

# MADISON COUNTY PLANNING BOARD

P.O. Box 278 • Virginia City, Montana 59755 • Phone (406) 843-5250 • Fax (406) 843-5229

January 16, 2007

#### TO WHOM IT MAY CONCERN:

I am writing to express appreciation for the technical support and information provided to Madison County by the Montana Bureau of Mines and Geology.

Several years ago, MBMG provided the County Planning Office with a set of geology maps to assist in our evaluation of proposed subdivisions. The Madison County Planning Board and County Commissioners subsequently instituted a geologic review requirement as a part of the local subdivision process. MBMG maps – the original set, plus the newest maps covering the Madison Valley – give us the basic information needed to determine which proposed developments merit a more detailed geological and geotechnical review. With MBMG's help, Madison County now approves subdivision designs and sites that are more likely to protect public safety, public investments in infrastructure, and private investments in home and business construction.

For the past two decades, Madison County has experienced steady growth and this trend is expected to continue. More and more individual well and septic systems are being installed; yet, we lack the data needed to understand our groundwater and surface water resources, and the impact of further development on them. Again, MBMG has aided our information "bank", by implementing a well monitoring program. Thanks to MBMG, we are slated to undergo a groundwater characterization study beginning later this year. Such a study will help us — County officials and staff, local landowners, Montana DEQ, and Montana DNRC — better understand the potential and actual impacts of growth on our water quality and quantity.

The value of MBMG geology maps and studies to local-level planning and sitespecific development cannot be overstated. They are an essential tool in growth areas like Madison County.

I hope MBMG can continue to provide such excellent technical assistance.

Sincerely,

**Doris Fischer** 

**County Planning Director** 

Loris Fixcher

# FESS FOSTER, Ph.D., CPG, QP Geological & Environmental Consulting

21 Paul Gulch Road Whitehall, Montana 59759 Phone: 406-287-3261

January 15, 2007

#### To Whom It May Concern:

This letter is written to convey the importance of the Montana Bureau of Mines and Geology (MBMG) to the mining industry, and to the state of Montana in general. I have utilized MBMG staff expertise, publications, and research over the past 25 years. Following are several examples from the past year alone.

- I recently completed a geologic research project on the Butte Mining District.
  - Recently published MBMG Map MC-19 is by far the most accurate depiction of the distribution of underground workings at Butte. It was invaluable for my work, and is also very useful for environmental (groundwater) evaluations of the city of Butte.
  - ➤ Robin McCulloch, Associate Research Mining Engineer located a number old maps and data for the Butte District that were extremely valuable, and not available elsewhere. He also provided me with firsthand knowledge of the district.
- I have been involved with an ongoing evaluation of southwestern Montana faulting and distribution of ore deposits.
  - ➤ Michael Stickney, Director of the Earthquake Studies Office, provided me with publications on deep seismic research for the area that I was not aware of.
  - Paul Thale, GIS Specialist, helped me with GIS data available for the area.
  - > The MBMG records room has been extremely useful. It contains hard copy maps and files for properties and projects throughout the state. Most of these are from unpublished sources that are not available elsewhere. New records are continuously added to this collection.
  - > The soon to be published new state geologic map will be very useful for this project. The old map was done 50 years ago, and very much needs to be replaced.
- I used the GWIC (Ground Water Information Database) to look up information on ground water wells.

MBMG resources are used by a broad spectrum of people in addition to the mining industry. These include environmental consultants, hydrologists, research geologists, land use planners, and historians. The mineral museum even plays a role in tourism and public education (including school children). The MBMG does not compete with industry. The state is definitely receiving value for their funding of the MBMG.

Over the years, I have found the MBMG staff to be competent and courteous. Their efforts should continue to be funded, and if possible increased.

I would be happy to discuss this in more detail with anyone that is interested.

Sincerely,

Feis Foster

Fess Foster

Gay Ranch, Inc. Glenn Gay HC 59 Box 7 Broadus, MT 59317

January 15, 2007

To Whom It May Concern:

I own and operate a cow-calf ranch in Powder River County. I am writing to express support for the programs and research of the Montana Bureau of Mines and Geology and to request the continued funding for this agency.

Coalbed Methane development is located just across the border in Wyoming and is moving into Montana. The Montana Bureau of Mines and Geology has been actively compiling baseline data on wells, springs and general hydrology before this development occurs in Montana. This data is stored in the Ground-Water Information Center (GWIC) and is available to the public. This is a valuable resource for pre-CBM baseline data.

I am on the Powder River County Weed Board and we have used the GWIC data when applying for noxious weed grants to mitigate environmental concerns. I have also used the GWIC data when researching well logs of wells on my ranch. The Montana Bureau of Mines and Geology is currently conducting research with monitoring wells on this ranch. This research will help understand the movement of ground water through various soil types.

I have attended many seminars where MBMG personnel have given talks to inform the public on water issues and to answer questions concerning hydrology and the effects of CBM development. This will allow me to make more intelligent decisions concerning CBM development when it comes to my ranch.

I feel the funding of the Montana Bureau of Mines and Geology is a valuable and important use of State funds and request the funding to continue. Thank you.

Yours truly,

Glenn Gay

# Concordia LLC

Tom Gignoux 2755 Lincoln Hills Road Missoula, Montana 59802

Dear Montana Legislators,

Thank you for your good work to represent us in Helena. I appreciate the long hours you work and the time you spend away from home during the legislative session.

It is a pleasure to write you to support the excellent service the MBMG provides Montana. Its present and past research, maps and reports provide a foundation from which good public policy can be made and from which private enterprise can base its work. Frequently the scale of this work is too large and specialized to be done well by private enterprise.

New environmental technologies in energy, transportation, housing and electronics require minerals which Montana can provide. I am an exploration geologist and an environmentalist. The bureau's maps and reports help me focus work on areas where deposits are likely to be concentrated and clean of unwanted accessory minerals; areas where environmental problems will be least.

The high quality of the Bureau is apparent when working in other states and countries. Montana's reports and maps are accurate and reflect a deep understanding of geology knowledge. Likewise the communication between the Bureau and private enterprise, other state agencies and universities is excellent.

Again, it is a pleasure to write supporting the Montana Bureau of Mines and Geology.

Sincerely,

**Tom Gignoux** 

# **TOWER PIZZA**

3000 Brooks • Missoula, MT 59801 • 543-6112

To whom it may concern;

I have a commercially permited quartz wine at Butte and a permited emerald Prospect West of Missoula. Robbin Mecullock at M+ Bureau of Mines was most helpful in permiting these projects Du Dick Berg of the Bureau is also very helpful. Robin and Berg have united both sites to help identify ove zones, calculate reserves and form mining strategles. I am a frequent visitor to the bureau office at MIT Tech to research their vast data base and array of various maps. I visit Berg often for specimen identification, ore values and mannelling advice. The Bureaux of Mines has been involuable in helping my wining operations. Jussell A. Hago

> Mola, MT 59802 406-239-0275

EMAIL DUKBSTR@aol.com

# KEVIN HAGGERTY DRILLING, INC.

4940 Stucky Road Bozeman, MT 59715 Ph. (406) 587-2303 Fax (406) 586-1605

January 16, 2007

To Whom It May Concern:

My name is Michelle Haggerty. I have worked in the office of Kevin Haggerty Drilling, Inc. for the past four years. When I first started we were a very low tech office. Shortly after I began working for him, I convinced my dad to sign up for internet service and we began using the Montana Ground Water Information Center, or GWIC, internet site.

We have found the GWIC to be a wonderful resource. A well log must be filed on each and every well that is drilled in the state of Montana. These logs show how deep each well is, how many gallons per minute it produces, what kind of casing was used and what type of formations were encountered. Now, not only can we access the logs for wells our company has drilled, but we now have access to the well logs for all of the wells that have been drilled across the state. This may seem like a small thing to some, but for us it is very important. The GWIC is a resource we use to try to give our customers more accurate estimates, to help determine what sort of depths and conditions we may encounter when drilling in a new area, and to help us problem solve if we are having a difficult time drilling a particular well.

A few years ago the GWIC also developed a program to allow us to enter our well logs into the system via their site, eliminating the need for us to fill out each form by hand and send them in through the mail. Not only does this save us valuable time, but it conserves a lot of paper too.

It has come to our attention that some of the funding for the Ground Water Information Site is being reassessed. If House Bill 116 is passed it will remove the funding cap placed on the GWIC program, which means that the program can seek other funding to keep up with the cost of inflation. It is also important the current legislation replace the one-time-only funding for the Ground Water Assessment Program authorized by the last legislation. Without that funding for the Ground Water Assessment Program, GWIC will lose a percent of its budget.

Please help us keep the Ground Water Information Site moving in a forward motion. We use this resource on a daily basis and the information it contains is vital to our business. This is a huge resource for our state. It contains vast hydrologic and geologic information for many people including but not limited to water well drillers.

Sincerely.

Michelle Haggerty

Kevin Haggerty Drilling, Inc.

4940 Stucky Rd

Bozeman, MT 59718

406-587-2303

littledriller@hotmail.com

# MISSOULA CITY-COUNTY HEALTH DEPARTMENT WATER QUALITY DISTRICT 301 WEST ALDER MISSOULA, MONTANA 59802-4123

(406) 258-4890 FAX # (406) 258-4781

January 19, 2007

2007 Montana Legislative Committees

Re: Support for Montana Bureau of Mines and Geology Programs

To Whom It May Concern:

The Missoula Valley Water Quality District is a local water quality district authorized under 7-13-4500 MCA for the purpose of "protecting, preserving and improving the quality of both surface and ground waters" in the Missoula Valley. Our task has been made much easier by the services of the Ground Water Information Center and the invaluable research, data collection and interpretation being conducted through the Ground-Water Assessment Program.

We rely on the GWIC database of wells and well logs to support local investigations of pollution threats, review of subdivision proposals and help provide the public basic ground water information. In addition, the support and cooperation provided through the MBMG's state wide monitoring program allows us to provide the public quarterly and in some cases continuous water level information from selected monitoring wells in the Missoula Valley. MBMG's geologic maps and reports also provide the basic geologic and hydrologic framework for evaluation and protection of Montana's water resources. The MBMG has also worked to provide their information in an easily accessible form to both professionals and the public through their web site and on-line databases. This effort is a model of how public access and the distribution of data can be managed.

We support the base funding for MBMG programs contained in House Bill 2 and also support the added flexibility provided by removing the funding cap on the Ground-Water Assessment Program as provided for in House Bill 116.

Thank you for your consideration.

Sincerely,

Jon Harvala

Environmental Health Specialist

#### **Koski Consulting Corporation**

John S. Koski

Transwestern | Bldg., Ste. 211 404 N31st St Billings, MT 59101 (406) 248-9392

January 11, 2007

Tom Patton
Montana Bureau of Mines and Geology
Montana Tech
1300 West Park Street
Butte, MT 59701-8997

To Whom it May Concern,

I wanted to express my appreciation for the Bureau's services, especially the Ground Water Program and GWIC data base.

For many years, I have been involved with the planning, acquisition and interpretation of 3-D seismic surveys. Near surface conditions can have a major impact on both the cost and resulting data quality.

Near surface gravels tend to absorb seismic energy, resulting in a deterioration of data quality for deeper objectives. The lithologic descriptions in the GWIC data base provide excellent estimates regarding the shot hole depth needed to place the energy source below these gravels.

Regardless of the seismic energy source used, the GWIC data base allows the identification of potential problem areas, resulting in better cost estimates and improved data quality.

Thanks,

John Koski

Koski Consulting Corporation

The.

Enviro-Tech Consulting Inc. P.O. Box 5674 Kalispell Mt. 59903 406-257-2795

Date- 1/12/07

Re- GWIC & Mt. Bureau of Mines & Geology

To whom it may concern-

I am an Environmental Consultant working in Flathead & Lincoln Counties for the past 16 years. My work is directly related to the DEQ subdivision program. I am also president of the Montana Environmental Consultants Association (M.E.C.A.), and have been an active member of the DEQ "task force" since its conception.

The GWIC wed site has proven to be one of the most vital tools that I use. I go to the site several times a day while working in the office. If for some reason my Internet is not working or the web site is down I find I cannot obtain the information required in order to prepare a complete submittal.

I know that this web site is vital to several agencies. Surveyors, County Sanitarians, DEQ staff, Realtors, other consultants and even the general public rely on the information that can be obtained at this site. I use this site to research aquifer mapping, well logs and their locations, soil types, topography, aerial photography, floodplain mapping to name just a few.

I strongly urge that funding be provided in order to continue this valuable wed site along with the Ground-Water Information Center and the Montana Bureau of Mines and Geology. The staff in these departments have been a great asset for me. I have always been able to contact them with concerns an issues and they have always provided me with useful information or have guided me in a direction to obtain the information I am looking for.

Sincerely-

Brian S. Launius

**Enviro-Tech Consulting Inc.** 

Montana Environmental Consultants Association- president

dunio

#### To Whom It May Concern:

I am writing this letter in support and recognition of the Montana Bureau of Mines and Geology, located on campus at Montana Tech of the University of Montana. I have worked in the mining industry in several states including Montana and have had the benefit of the services and expertise from several of the Bureau's representatives. While working for Barton Mines Company, LLC in upstate New York, (world leader In garnet abrasives production), I was assisted by Rob McCulloch, staff mine engineer, and Dick Berg, industrial mineralologist, in doing some exploration work involving a tailings site rich in andradite garnet, located near Glen, Montana. Rob and Dick both assisted with discussions of the history of the property, liasoning with the property owner, discussing applications in industry, providing existing sampling data, mineralogy, and suggesting efficient methods of sampling the deposit, as well as directing me to required equipment/services options in the area.

I have since moved to Montana and now work for Ruby Valley Garnet, LLC at Alder, Montana.

I have met with Mr. McCulloch, Mr. Berg, and Mr. Marvin Miller on several occasions to discuss various issues involving the operation, mine area, and possible future mine sites, as well as on-the-ground visits to look at water availability and discuss (on site) possible solutions for exploration and operating methods.

These meetings in the field and by phone/office I have received non-biased and very useful information that has assisted me with decision making, saving time, and ultimately, saving money.

Mr. Berg has assisted me with photographing specimens of the garnet that is mined here such that the photos could be used for our company website. His many years of experience with photographing gems is extremely useful and efficient. He has also given me information about possible locations for future mine sites within the area where he had done geological mapping work.

finally, on numerous occasions I have been pleasantly rewarded by the availability and scope of the maps- and publications office within the Bureau. I have had 100% success in obtaining copies of documentation and maps due to the knowledgeable and efficient service of the personnel within that division.

Thank You,

Bret J Lawson
Operations Manager, Ruby Valley Garnet, LLC
Alder, Montana

January 15, 2007

To Whom It May Concern;

I am writing this, not as a representative of the State agency that employs me, but as an individual who has made observations about the value of information and services provided by the Montana Bureau of Mines and Geology (MBMG). My perspective comes from the industry of agriculture, particularly economic development tied to agriculture.

MBMG performs groundwater studies and geological mapping that identify and delineate aquifers that can be used for irrigation. This information plays a vital role in the responsible development and management of such aquifers, including providing critical information for the establishment of water rights. MBMG's groundwater and well database provides information that is used to identify suitable sites for agricultural processing facilities (such as malting facilities, ethanol and biodiesel plants, and produce processing facilities) and high value agricultural production operations such as dairies, greenhouses, nurseries, and commercial fish hatcheries. The same database is utilized by state agencies that investigate the impacts of municipal, industrial, and agricultural activities and groundwater and is utilized by state agencies that monitor the State's hydrology and the impacts of drought and development on the State's water resources. In the past, MBMG performed important research that helped reverse Montana's widespread saline seep problem, saving Montana farmers millions of dollars annually. Information collected by MBMG related to geological hazards is important to agriculture as it pertains to dams and irrigation structures. Such information may identify locations (in areas experiencing high rates of development and population growth) that are susceptible to geological hazards, leading to "smart development" that keeps susceptible land in agricultural production. It is my understanding that in the future MBMG may undertake studies related to geological carbon sequestration. This may lead to cutting-edge research that could be economically valuable to Montana as alternative energy projects are built. While a significant focus may be on sequestering greenhouse gases produced by coal-based energy projects, ethanol plants produce significant quantities of carbon dioxide. With this research, future ethanol plants in Montana may be able to generate income (and achieve a competitive advantage) by sequestering carbon dioxide and selling greenhouse gas credits in markets such as the Chicago Climate Exchange.

In summary, MBMG's work is important to Montana's agriculture industry, just as it is to other industries and local governments throughout Montana.

Sincerely,

Chad Lee

1427 Highland Street

Helena, MT 59601

AND WAR IN



Brian Schweitzer, Governor

P.O. Box 200901 . Helena, MT 59620-0901 . (406) 444-2544 . www.deq.mt.gov

January 16, 2007

To Whom it May Concern:

The Montana Department of Environmental Quality uses the MBMG work in numerous work products and in many programs. The most common uses are in the production of environmental assessments and groundwater assessments. Whether it is a subdivision, exploration or development of mines, power plants or any other construction, the geology is the basic foundation of the development. Geological information reflects stability and groundwater movement which affects the water and nondegradation analysis needed to determine if the subdivision or project will be approved or not.

The Department often meets with those who have a concept for a development early in the process to offer concerns and ideas on what may be needed in the way of permits. It is often at this point in the process that major issues are resolved. The following is an example of just such a time. The use of MBMG geologic mapping was critical to a project that turned out to be a real success story for the state.

A developer came to us recently with plans for a new power plant in eastern Montana near the coal reserves. In a meeting with the developer to discuss preparation of an environmental impact statement, I raised a concern about the proposed location of the plant being so near a major fault shown on a new MBMG map. Older maps hadn't shown the extent of the fault and the developer wasn't aware of the new mapping. After some work was done to follow up on the information, the planned power plant was moved more than two miles away from the fault. Imagine the problems and possible catastrophe that could have happened with a power plant built on top of a major fault! Additionally, the MBMG is following up with work through FEMA to better understand and prepare appropriately for the hazard that was found in the mapping effort.

Sincerely,

Bonnie Lovelace, Chief

Water Protection Bureau

Department of Environmental Quality

Foulace



### **BIG HORN CONSERVATION DISTRICT**

724 W. 3rd

Hardin, Montana 59034-1604

406-665-3442

FAX 406-665-3916

January 16, 2007

To Whom It May Concern:

In the past several years, the Big Horn Conservation District has worked with the Montana Bureau of Mines and Geology on several projects that have impacted landowners, land managers, and industry within the State of Montana. These projects involve studies of groundwater as affected by population growth, irrigation activities and, of course, coal-bed methane production. Their assistance in developing and implementing these projects has been critical. Without Montana Bureau of Mines and Geology the valuable data resulting from these projects would not be available to assist in making crucial development decisions.

The data obtained from these studies is easily available to interested persons at the Ground-Water Information Center (GWIC). GWIC not only houses ground-water data and well logs, it provides interpretations and explanations of ground-water data and coal-related information. Funding of this repository of ground-water data is as important as obtaining the original data.

Please recognize the importance of GWIC in making ground-water information easily available and understandable by providing adequate funding to continue this important part of protecting Montana's ground water.

Sincerely,

Gloria A. Menke District Manager

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# Lewis & Clark County

# Water Quality Protection District

316 N. Park Ave Helena, MT 59623

Telephone: (406) 457-8927 Fax: 447-8398



January 16, 2007

Montana Bureau of Mines and Geology 1300 West Park Street Butte, Montana 59701

To Whom It May Concern:

The Lewis & Clark Water Quality Protection District (District) is writing to express their support for the GWIC (Ground Water Information Center) and the Ground-Water Assessment Program of the Montana Bureau of Mines and Geology (MBMG). Ground water is an invaluable resource that needs to be protected. With increases in population in rural areas and within the montane valleys of the state, the reliance on this priceless resource for quantity and quality has been in the forefront of our interactions with growth.

The Water Quality Protection District was created in 1992 with the mission: to preserve, protect and improve water quality within district boundaries. The ability to access information that the central repository of the GWIC database provides, has contributed to the mission of the District. This resource enables the District to respond to citizens' concerns about water quality, facilitate planning for the prudent use of our watersheds and to develop and implement water quality protection projects.

The District could not complete its mission without the help of programs like the GWIC and the studies that the MBMG has collaborated with the District. Recently the Helena Valley Coliphage Evaluation, Pharmaceutical Ground Water Monitoring, and the Ground-water Sustainability of the North Hills Controlled Groundwater Area are examples of collaborative projects with the MBMG, which enabled the District to collect geologic and hydrologic data to facilitate evaluation and management of ground water resources in the Helena Area, has provided valuable information on our ground-water resources.

In addition, the MBMG Ground-Water Assessment Program conducts quarterly water level measurements of over 40 wells located in the Lewis and Clark County. These measurements are then made available to the staff and the general public in the GWIC database. This data and the access to it is critically important to understanding the current status and changes occurring to our ground water resources. District staff, land use planners, government decision makers, business interests, and the general public regularly review this data. Therefore, we support the restoration of necessary funding to continue the GWIC, the Ground-Water Assessment Program, and the Montana Bureau of Mines and Geology at present levels. We would even express the view that the State should explore increasing funding of these programs that provide such a benefit to the citizens of Montana.

Sincerely,

Kathy Moore
Administrator

FP.

406 293 2578

01/12/2007 01:41 #002 P.001/001

Rootenai Surveyors, Inc. 314 California Ave. P.O. Box 393 Libby, MT 59923

(406) 293-4354 fax: (406) 293-2578 e-mail: johnp@ksimt.com

January 12, 2007



Montana Bureau of Mines and Geology 1300 W. Park Street Butte, MT 59701

Fax: 406-496-4343

To Whom It May Concern:

As a former Lincoln County Sanitarian, and now, as a resource person for KSI, I use the Montana Groundwater Information Center web site extensively to obtain copies of well logs for use in Sanitation in Subdivision review.

This web site has been invaluable in my research. It is a vast improvement over the former way of obtaining well information. The program is a most useful tool to those of us working on Montana DEQ subdivision review applications. I wish to thank the Bureau of Mines and Geology for providing a necessaary service to the public.

I encourage the Joint Subcommittee on Education to support continued adequate funding to allow the GWIC program to remain viable and up-to-date. Thank you for an opportunity to express my opinion regarding the usefulness of the GWIC website.

Since ely:

John W. Peterson

#### Patton, Tom

From:

Health & Planning, Mineral County, Montana [hlthplan@blackfoot.net]

Sent:

Thursday, January 18, 2007 9:41 AM

To:

Patton, Tom

Subject: GWIC Service

Tom, Tim Read here from Mineral County and as both the Planner and Sanitarian I utilize the GWIC data base frequently for both responsibilities. Over my 24 years of public service I have found this data base to offer more assistance than can be calculated. I apologize for not being able to comment via letter but I thought this still maybe of assistance is support of funding for the Bureau of Mines and Geology that provides the Ground Water Information Center. Thanks for your efforts. Sincerely Tim Read, R.S., Mineral County.

### M. F. SEEBURG 1400 AXTELL ANCENEY ROAD BOZEMAN, MONTANA 59718

TELEPHONE 406-763-4598 PAX: 406-768-4947

To Whom It May Concern,

1/16/07

I am writing today to express my support for the important work done by the Montana Bureau of Mines and Geology in their Ground Water Assessment Program. I have no doubt of the significance of the work for the state especially when viewed from the ever increasing usage of ground water within our state. Specifically, please support the funding for this scientific work that is present in HB 2 and HB 116. I worked with Tom Patton on the DNRC's ground water surface water work group and the group's efforts were assisted by Tom's extensive knowledge of the ground water usage in the state. Please continue to fund the Ground Water Assessment Program.

Sincerely yours.

M.F. Seeburg

# Walter J. Taylor Jr. HC42 Box 595 Busby, MT. 59016

January 15, 2007

To Whom It May Concern,

I am writing in support of funding programs carried out by the Montana Bureau of Mines and Geology (MBMG). MBMG have educated the Rosebud Watershed Group in how to measure water wells and springs. They also educated us on how to use their website Ground Water Information Center (GWIC), first by how to submit creditable water data and second on how to retrieve data. This has been very important to the Watershed group because we are establishing ground base data before coal bed methane development or any other development that may occur in the watershed. MBMG also put in a weather station next to their ground water test wells to measure the affect of the weather and the groundwater levels. This data is available on the GWIC website and Rosebud Watershed Groups website. The Rosebud Watershed Group's goal is to have everybody working to have a better watershed to pass on to the next generation. To date the Montana Bureau of Mines and Geology has played a very crucial role in affording us the chance to meet our goals.

On a more personal note, the Bureau helped me establish flows on springs and have them publicly documented on the GWIC. This part of our ranch is scheduled to be under development for coal bed methane anytime now. We have also found the need to expand and we have been able to lease from neighbors. Many of the wells on these ranches were drilled many years ago, and nobody seems to have any data available. As these wells needed new pumping systems I was able to retrieve the well data from GWIC. I have had the opportunity to tour MBMG's test wells along the Montana — Wyoming border. We also toured the methane fields and looked at their water disposal systems. MBMG's work and knowledge will be crucial in how Montana develops their coal bed methane in the years ahead. The GWIC will be our much needed data source. There is still so much to learn and MBMG is playing a very important role for the State of Montana, the landowners, and the CBM developers.

Sincerely,

Walter J. Taylor Jr.

wlazyt@rangeweb.net

Walter J Taylor p.

406-757-2236 (Ranch)

#### TO WHOM IT MAY CONCERN:

We the members of Citizens of Resource Development ask you to continue to support the state funding to the Montana Bureau of Mines and Geology programs.

We feel it is important to continue the scientific studies the MBMG are working on. We have found their information important to the understanding of Coal Bed Methane and the impact its development can have on our state.

Mr. Wheaton has taken time to speak to our organization two different times in a year. He has taken time to meet with individuals to answer specific questions pertaining to CBM development. He has set up studies on members' acreage so water questions can be studied.

Please continue to fund the Montana Bureau of Mines and Geology programs.

Dick Wilson, President Uck Wilson

Citizens for Resource Development

Box 344

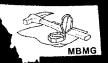
Broadus, Mt. 59317

Abbertaion Tom Patton

# Montana Bureau of Mines and Geology

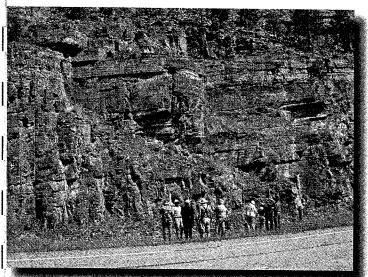
Get Inte It!

Montana Tech of The University of Montana



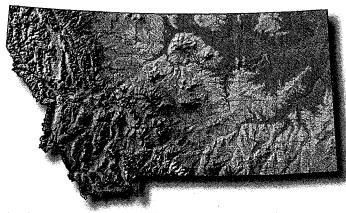
#### Introduction to the MBMG

Geology permeates our daily lives to an extent that few of us realize. The very shape of the landscape, the earth resources upon which our society depends, and the health and safety of our communities that may be at risk from geologic hazards are all part of the geologic fabric that surrounds us. Policy decision makers at State and local levels often face conflicting opinions and options regarding competing interests for land, water, mineral, and energy resources. Identification and mitigation of existing and potential geologic hazards, including those that we create and others that are entirely natural, may be surprisingly controversial. Geologic information is critical in resolving these and many other issues.



Since 1919, the Montana Bureau of Mines and Geology (MBMG) has been directed by the legislature to address these issues; we are also uniquely qualified to provide integrated answers to these issues. The MBMG is a non-regulatory, applied-research and public-service agency, and the State's geological

survey. Our staff scientists have extensive knowledge of ground-water evaluation and protection, superfund sites, resource development and extraction, geologic mapping, and overall expertise in the geology of Montana.

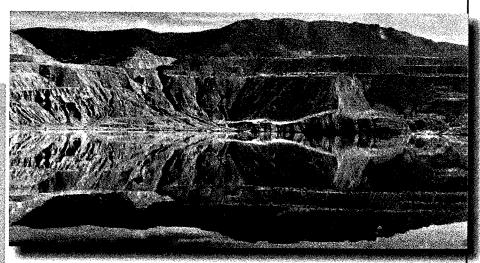


The demand for oil and gas, coal and coalbed methane, cement and lime (limestone), metals, and industrial minerals (talc and garnet) is unprecedented and has fueled Montana's economic growth. As the local economy grows, so does our local demand on those same resources and more—including water. It is easy to see why investigations related to geology, mining, and ground water in Montana are in high demand. In response to that demand, the Montana Bureau of Mines and Geology is actively participating in nearly 100 projects related to minerals and water in virtually every county in the State.

The Montana Bureau of Mines and Geology continues to utilize its grants and contracts program to better serve the needs of Montana citizens and to broaden its overall effectiveness. During the past 2 years, MBMG professionals in Butte and Billings have been involved in 90 outside-funded projects cooperating with 97 different local, State, Federal, and private organizations. These projects, evaluating virtually all aspects of Montana's vast water and mineral resources, are distributed throughout Montana. Many of our projects include students from the Montana University System, providing educational opportunities in earth sciences, engineering, and computer science.

## What's New in the 2007 Biennium

- \*New coal/coalbed-methane geologist
- \*New statewide geologic map
- \*New with GWIC: DrillerWeb
- \*New screening analysis for pharmaceuticals in
- \*New ICP instrument provides parts per trillion detection limits and isotope analyses
- \*New Biennial Report (available now)
- \*Plans for our new Natural Resources building



The Berkeley Pit. MBMG staff maintain the the Butte Mine Flooding monitoring network, along with Montana Resources and ARCO.